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## Agriculture Experts Predict No Worm 'Armygeddon' This Year

By AMY ROLLINS

Inching it's way into history, Duxbury's armyworm epidemic seems to have flourished over the past week, but the latest advice is to leave them alone.

This comes none to soon for Carl O'Neil, whose dairy farm on Winter Street has seen more than twelve acres devoured by the worms.

"It just turned all brown," said O'Neil of the acres of hay which once stood a foot tall.

"It looked as though I had mowed it, or the cows had eaten

it," he said. A visit Tuesday afternoon revealed Armyworms on the field starting to form little black cocoons on the thin blades of dead grass.

O'Neil's farm has been in his family for generations and he said there has never been this kind of problem. He said the pests have caused significant financial damage, but he does not plan to use pesticides.

O'Neil is not alone in his battle with the armyworms. For three weeks, Plymouth County's UMass cooperative extension program has been

monitoring the strange influx of the worms in the area.

"What we know about them is that they are a Southern pest that travels in on wind currents. It's possible that as moths, they traveled in on one of the tropical storms we had in May or June," said Deborah Swanson, the extension educator at the service in Hanson.

The UMass extension's Plymouth county office has been inundated with calls, Swanson said. Calls from Wareham,

Marion, Halifax, Hanson, East Bridgewater, Kingston, Pembroke, but especially Duxbury and Marshfield have complained of lawns full of wriggling worms.

"I've been here for over twenty-five years," Swanson said. "The man who worked here before me had been here for forty years, and neither of us has seen anything like this. There's no prior history of anything like this in the area. It's like the 'Perfect Storm', or maybe the 'Perfect Horticultural Storm', all the right conditions just combined," she said.



Carl O'Neil displays an Armyworm in the onset of the pupa stage; it is just starting to form a cocoon.

According to UMASS Turf Entomologist Dr. Patricia Vittum, armyworms often attack corn, but corn was slow in germinating this spring because soils were so dry. "We don't know why they are here. One of the theories is that with the slow crop development this spring, the Armyworms had to migrate because they will eat grass and hay too," Swanson said.

Swanson said she visited a lawn in Duxbury where the worms had simply taken over the grass. "We're talking about 75 to 150 caterpillars to a square foot," she said. "The whole lawn was alive and undulating."

Virtually all the playing fields across town were infested with the armyworm larvae, according to recreation director Gordon Cushing's memo to the town manager. After investigating the grounds at Coppens Baseball field, and the other Town fields, Cushing decided that treatment was necessary.

On July 2<sup>nd</sup>, Pat Fellow, a certified pesticide applicator and the Duxbury Yacht Club Superintendent, treated 19 acres of playing fields at the school complex. By July 5<sup>th</sup>, the remaining 21 acres of fields across town were treated by a private contractor.

Because the worms have since grown, the current recom-



**O'Neil inspects Armyworm damage on one of his farm's 15-acre fields.**

mended solution from Swanson is not to spray lawns or fields with pesticides, but to let the worms have their way.

"The worst of the damage is done now," she said. "The best thing to do is wait and let them turn into moths because moths don't feed, they exist to mate and lay eggs. We'll have to wait and see if they will lay eggs in the same place."

Swanson explained that most worms in our area are in the pupa stage. This means that they are resting in the soil and will soon emerge as moths. "At one and half inches, they are close to pupation and ready to build cocoons," she said. "The best thing to do is wait and see what happens. It is not environmentally sound at this point to use insecticides because the larger the worm, the more insecticide is needed. If eggs re-hatch in the same area, then the best thing to use is B.t., *bacillus thuringiensis*."

B.t. is a safe solution that is specifically geared towards caterpillars, moths and butterflies, Swanson said. It works on the worms when they are very

small. Swanson explained that using the solution on the worms when they are grown is ineffective.

Vittum said she expects the infestation to begin to decline very soon in most areas. Vittum noted that there have been instances where the caterpillars have died in areas which were not treated, she said she does not know why this is happening, but offered two explanations. First is that dense Armyworm populations are under stress and cannot find sufficient food (grass, hay, etc.) and second is that caterpillars may have migrated from a neighboring lawn already treated with pesticides.

As for expectations for the future, Vittum said that Armyworms typically complete two or three generations in New England, but normally an area that is heavily infested early in the summer is not similarly attacked later in the season. Vittum also said that we should begin to see the armyworm moths flying in about ten days, they will fly at night and not cause damage to turf or anything else.

Two weeks after the moths have begun to fly, we will see small caterpillars emerging from eggs, this is when homeowners should monitor their lawns. To spot the worms, Vittum recommends flushing them out with a soapy solution, two tablespoons of lemon-scented dish detergent in one or two gallons of water. If this is poured over a square foot or so, the caterpillars will wriggle to the surface. The exposed worms will be easier to monitor and detect. Small caterpillars can be treated with the environmentally safe B.t. solution.

Vittum, along with Swanson and the extension service expect that lawns not severely hit